



Forecasting guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 07TH MARCH 2008

**AFRICAN DESK
CLIMATE PREDICTION CENTRE
National Centers for Environmental Predictions
National Weather Service
NOAA
Camp Spring MD 20746**

**FORECAST DISCUSSION 14H00 EST, 07TH MARCH 2008
Valid: 00Z 08TH MARCH 2008-00Z 10TH MARCH 2008**

1: TROPICAL CYCLONE WARNING:

The Tropical cyclone JOKWE is located near 45.3E 14.8S at 07 March 00Z and is moving southwestward. JOKWE is expected to intensify and its forecast track is as shown in fig.1 below. The cyclone is expected to produce heavy rainfall over northwestern Madagascar and poses a flood threat along the coast of Mozambique.

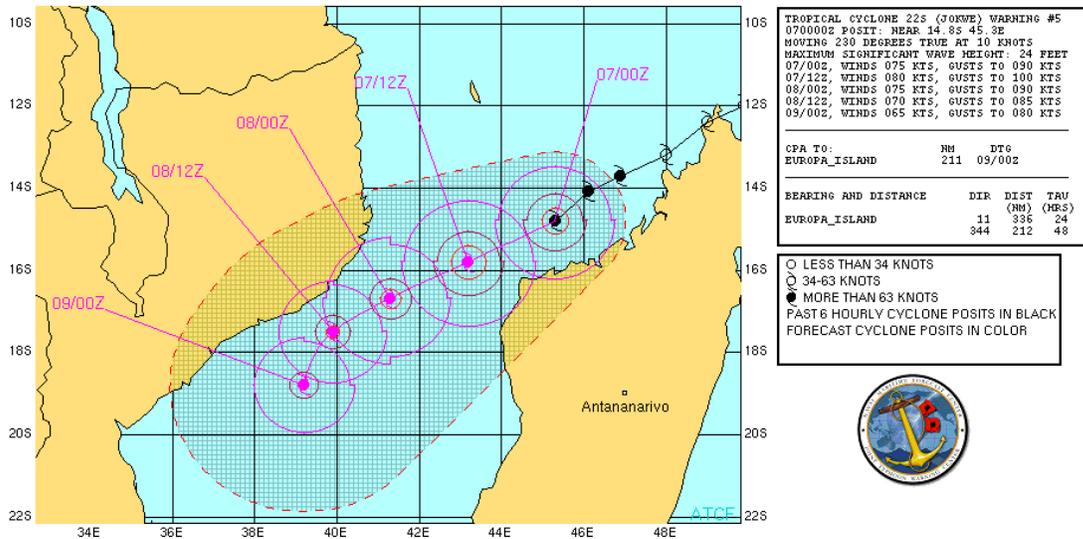


Figure 1: Forecasted track of Tropical Cyclone JOKWE
Source: <http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/index.primjo.html>

2: 24 HR RAINFALL FORECAST

Areas showing Probability Of Precipitation (POP) exceeding significant thresholds as shown in figures 2 – 4 for the dates of 08 to 10 march 2008 respectively.

24 HR RAINFALL FORECAST FOR 08TH MARCH 2008

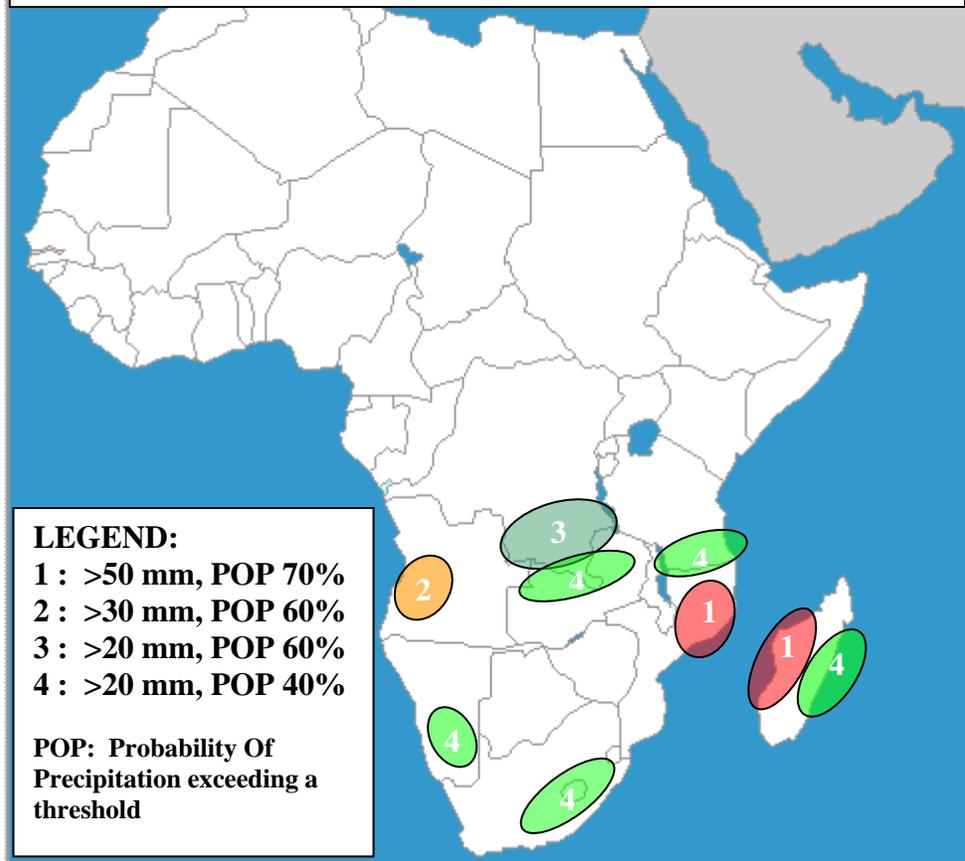


Figure 2: Areas of probability of precipitation for 08th march 2008.

24 HR RAINFALL FORECAST FOR 09TH MARCH 2008

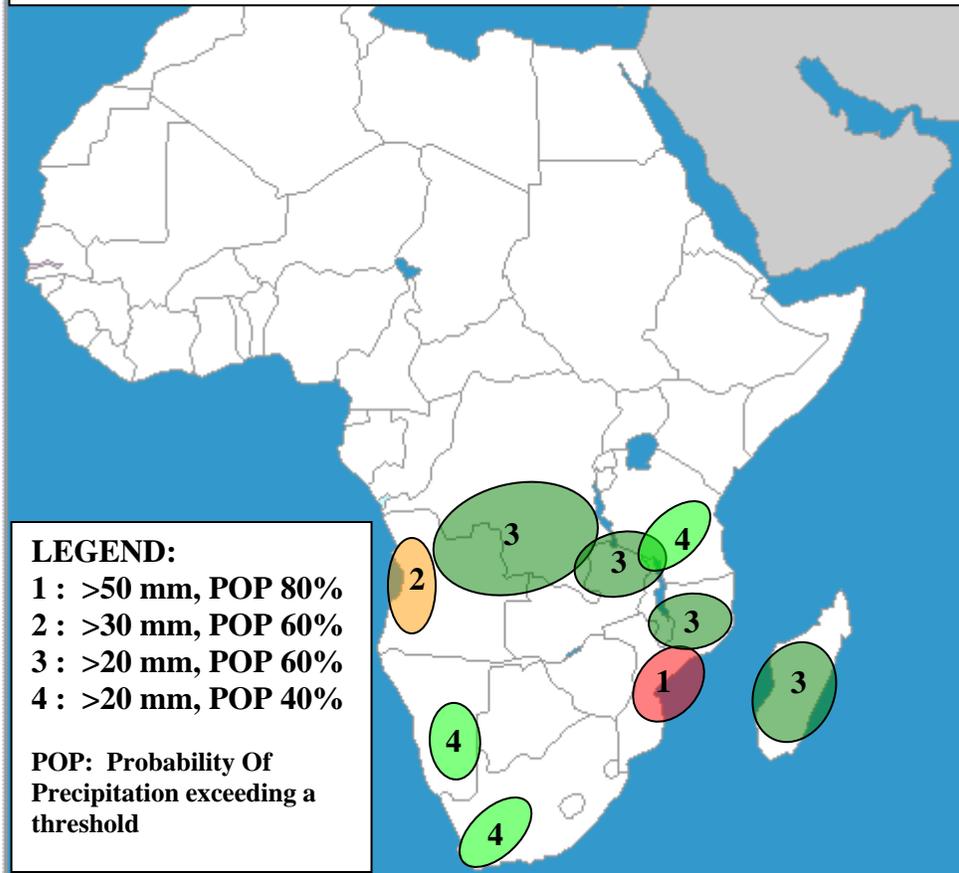


Figure 3: Areas of probability of precipitation for 09th march 2008.

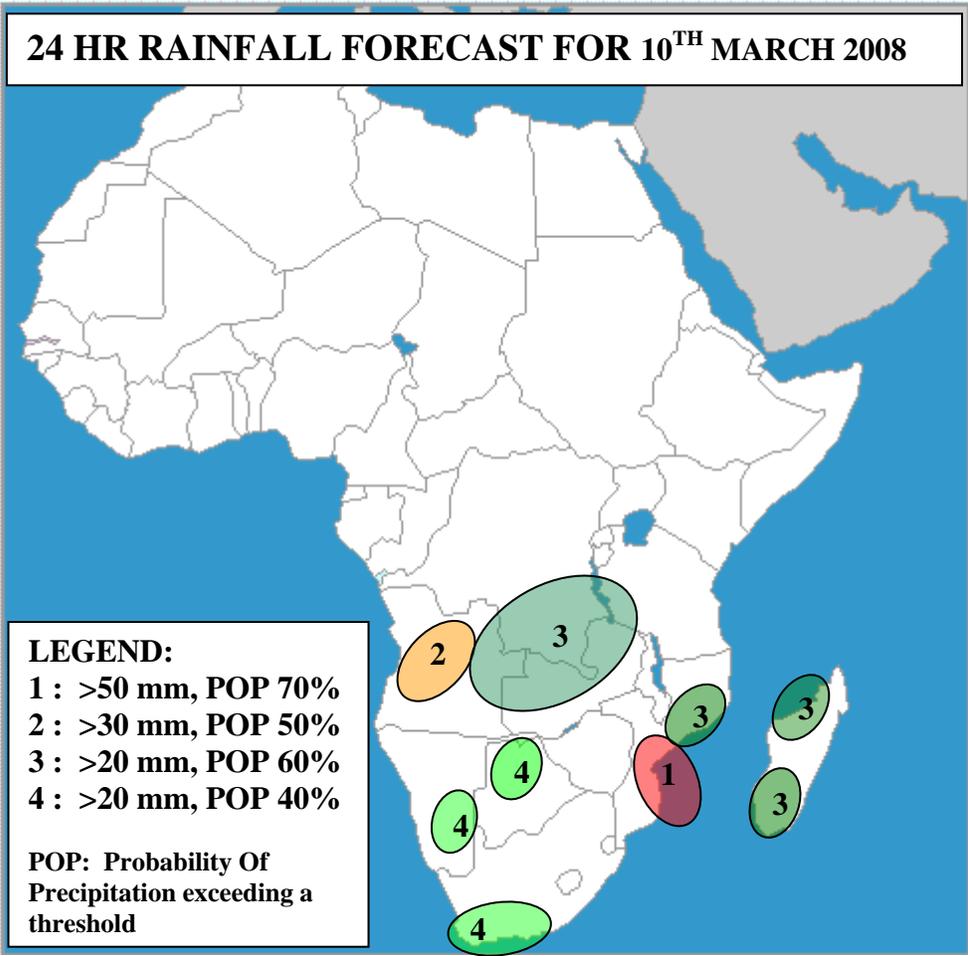


Figure 4: Areas of probability of precipitation for 10th march 2008.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 07th March 2008): In general, there is an agreement of UK MET, ECMWF and GFS models in the forecast track of the tropical cyclone JOKWE.

FLOW AT 850MB

At T+24, Tropical cyclone Jokwe is expected to move southwestward toward central Mozambique coast causing heavy rainfall over there. An easterly diffluent flow pattern is expected to prevail over southern Mozambique, Zimbabwe, Botswana and Zambia. This flow will also be maintained by the Mascarine high pressure system centered at 63E 35S. This easterly flow is expected to converge with the westerly flow over central Angola and southern DRC. This westerly flow is due to the low pressure system located over west Angola.

T+48, Tropical cyclone Jokwe is expected to continue its track along the Mozambican channel and steer along the coast. It is expected to contribute to convergent flow over central Mozambique and southern Malawi, causing a diffluent flow to prevail further north over eastern Tanzania and a convergent flow over southern DRC. A low pressure system is expected to continue over western Angola and the Mascarine high pressure system to ridge westward.

T+72, Tropical cyclone Jokwe is expected to change direction southeastward and cause convergent flow over central to southern Mozambique. The Mascarine high pressure ridging is expected to be oriented in northwest southeast direction over northeastern South Africa, eastern Botswana and southern Zimbabwe causing convergent flow over northern Botswana and southeastern Namibia. A frontal system is expected to move close to the Cap province of South Africa contributing to convective activity over there.

FLOW AT 500MB

At T+24, a middle level low pressure system related to Tropical Cyclone Jokwe is expected to prevail over central Mozambique, causing an easterly flow pattern over the northern part of the subcontinent with slight convergence over western Zimbabwe and northern Angola. A high mid-level pressure is expected to prevail over the southern part of the subcontinent.

At T+48, a mid-level trough system related to T.C. Jokwe is expected to extend over central to northern Mozambique and couple with the low level pressure existing over northeast of South Africa. A mid-level low pressure system is expected to prevail over southwestern South Africa. A northeasterly flow pattern is expected to dominate the northern part of the subcontinent.

At T+72, a high pressure system is expected to develop over central to northern Mozambique, pushing the low pressure system created by T.C. Jokwe southeastward. A northeasterly flow pattern is expected to prevail over the northern part of the subcontinent while a low level pressure system will continue dominating over southern South Africa.

FLOW AT 200MB

At T+24, northern Mozambique and northern Madagascar are expected to be dominated by an upper level high pressure associated with the T.C. Jokwe. An upper level divergent flow is expected to dominate over western to northeastern Angola, southwestern to central DRC, causing convective activity over there. An upper level trough system is expected to extend from northeastern South Africa through to western Zimbabwe, causing a convergent flow over central to southern Mozambique. A divergent flow pattern is expected to prevail over eastern DRC and a high level pressure area over central Angola, causing convective activity over there.

At T+48, an upper level high pressure associated with the T.C. Jokwe is expected to prevail over northern Mozambique and northern Madagascar, causing a convergent flow over southern Mozambique. The southern part of the subcontinent is expected to be dominated by an upper level trough, reducing convective activity over there. A divergent flow pattern is expected to persist over eastern DRC and central Angola, causing convective activity over there.

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